

### Congressman Ryan Announces Defense Appropriations Funding

#### *\$37.5 Million Approved by Subcommittee for Local Projects*

(Washington, DC) -- Congressman Tim Ryan (OH-17), a member of the House Appropriations Committee's Defense Subcommittee, announced today that the FY 2011 defense spending bill includes \$37.5 million for projects in Ohio and the 17th Congressional District. Funded programs range from advanced metals technology to biometrics, alternative energy, and orthopaedic research. The bill must still pass the full House Appropriations Committee, the full House and Senate, and be signed by the President.

"Our local universities and research institutions are doing some of the most sophisticated research and development work in the nation," stated Congressman Ryan. "And I intend to leverage my position on the Defense Appropriations Subcommittee to position Northeast Ohio as a leader in advanced materials manufacturing and alternative energy technologies. These projects will utilize our local talent to produce world-class results – creating institutional associations that can spin-off into high-paying civilian jobs that keep our kids in Ohio."

"We want to thank and commend Congressman Ryan for his work on behalf of the Mahoning Valley and his unwavering support of Youngstown State University as we continue our evolution into an urban research university," said YSU president Cynthia E. Anderson. "These allocations allow YSU to continue to play a leading role as an engine for the type of research and development activities needed to help this region's economic rebound."

"The University of Akron is appreciative of the support that Congress has given us as we continue to stimulate the economic prosperity of our region," stated Dr. Luis M. Proenza, president of The University of Akron. "We are especially grateful to Congressman Ryan and the regional congressional delegation that our work at The University of Akron is recognized as we address some of the critical infrastructure and health care issues facing our nation."

Warren Mayor Michael O'Brien added, "We couldn't be more pleased that Congressman Ryan has secured funding to facilitate the development of Tech Belt Energy Innovation Center in downtown Warren. This is a key element for continued development in the city – bringing new vitality to downtown, and new job growth to the region."

### YOUNGSTOWN STATE UNIVERSITY (YSU) PROJECTS

YSU is a public research university located in Youngstown, Ohio.

Ohio Enhanced Defense Alternate Energy Suppliers Program: \$4.79 million

This program establishes an incubator mechanism for Ohio's unique industrial base to be leveraged for emerging alternate energy and power applications and requirements. Youngstown State University will administer the Ohio Enhanced Defense Alternate Energy Suppliers Program in conjunction with the non-profit Tech Belt Energy Innovative Center in Warren, Ohio and the Youngstown Business Incubator. It will identify new technologies to improve fuel economy and provide alternate energy and power sources for Defense applications.

Advanced Nanocomposite Integrated Survivability and Force Protection Systems: \$3.5 million

The project advances development of a viable lightweight, cost efficient, nanocomposite material that can be used for force protection. By studying the ballistics properties of successfully produced plates, the tested materials will be ready for specific field applications of benefit to soldiers, such as Force Protection for military transport vehicles that require complex geometries.

### ADVANCED METHODS IN INNOVATION (AMI) PROJECTS

AMI is a collaboration of Youngstown State University and the Youngstown Business Incubator that promotes advanced manufacturing techniques and other high tech research, development and technology transfer applications to generate economic development in the region.

### Steel Hardening for US Navy Littoral Combat Ships: \$3 million

The funding will support further research into new methods of making stainless steel more durable and resistant to corrosion, thereby dramatically reducing energy consumption in energy intensive industrial processes. This project will build on work undertaken by the Industrial Materials for the Future Program of the US Department of Energy's Office of Industrial Technologies.

### Multi-Modal Biometric Patient Identification and Registration System: \$1.5 million

Funding will be used to develop hardware/software that establishes a link to each patient's portable health care card record and is continuously updated during subsequent visits. The system provides a commercially-viable and easy-to-use identification solution that can be utilized by any insurance company, hospital, clinic or medical office anywhere in the world. Funding will be used to establish a Biometrics Information Security and Image Science (BISIS) Research Center that will foster technological and economic growth in Northeast Ohio by providing a leading role in biometric testing, research, engineering, development, training, integration and commercialization.

### Model Based Enterprise Tools For Reverse Engineering: \$4.75 million

Using Model Based Enterprise (MBE), an innovative approach that enables multiple stakeholders to collaborate at the enterprise level, the funding will be used to improve the fielding and sustainment of weapons systems by designing and simulating the platform in a

digital environment. This project will conduct a larger-scale demonstration of MBE tools to establish and validate procedures and processes, and develop shop floor use cases for the US Army.

### UNIVERSITY OF AKRON (UA) PROJECTS

UA is a public research university located in Akron, Ohio.

Spider Mortar Base Plate: \$1 million

UA will develop new technology to redesign materials that will significantly reduce the weight and cost of mortar base plates, while increasing durability and extended usable life for the product. This will be addressed through use of a specialty steel spider – designed to absorb impact caused by firing rounds while providing the lightweight stability and durability necessary in the field. SMBP technology utilizes the properties of specific ultra high strength steel or nickel alloy for impact absorption, providing greater safety for the troops while still achieving the weight reduction and performance needs of the military.

## DEFENSE METALS TECHNOLOGY CENTER PROJECTS

The Defense Metals Technology Center is located on the Stark State College of Technology campus and functions as an industrial-based consortium to serve the needs of the DOD by facilitating research and development of innovative technology and products for the Defense Materials and Manufacturing Industry.

Defense Metals Stockpile Pilot Program: \$3 million

Secured funding will ensure a steady and available supply of critical, supply-ready aerospace-grade titanium for the Defense Logistics Agency and armor-grade titanium for the Army Research and Development Command. As efforts initiated by the Department of Defense to evaluate reconfigured stockpile approaches ramp up, the Titanium Stockpile Pilot Program will employ innovative vendor management techniques, develop buffer stocks and contractor-managed inventories, and create a virtual titanium inventory for implementation and evaluation purposes to protect from lapses in supply, support the domestic titanium industry, and ensure that the highest quality material is available for key projects of national defense and homeland security.

Defense Metals Technology Center: \$3 million

The Defense Metals Technology Center (DMTC) was established to affect needed changes within ailing infrastructure industries, high-capital start-up industries, and single-point failure risk industries, where there is tri-service benefit from combined investment. In one year, DMTC has developed strategic metals databases; sponsored titanium-related research projects; sponsored and expanded the Cooperative Educational program to include multiple institutions of higher

learning and expanded the program to include 19 Bachelor and Associate students who are training at the US Army Armament Research, Development and Engineering Center; among other initiatives. DMTC serves as an effective third party agent to link academia, national labs, industrial interests, and the Department of Defense to a common goal: maintaining a globally-competitive industrial base to support the cost effective manufacture of military hardware.

### ADDITIONAL RECIPIENTS

Austen BioInnovation Institute of Akron, \$5 million

The Austen BioInnovation Institute provides orthopaedic research and development, maximizing the research and clinical assets of its partners to introduce new knowledge, new products, and increase the quality of orthopaedic services in the region. The Institute will capitalize on select opportunities intersecting the musculoskeletal biology, polymer/material science, and orthopaedic focus areas – all of which will elevate Akron and Ohio's leadership position in orthopaedics, improve the quality of healthcare through research and education, and drive economic development linked to biotechnology.

Southwest Research Institute (SWRI) – Accelerated Therapies for Scar and Wound Healing: \$3 million

The Southwest Research Institute (SWRI) is an independent, nonprofit applied research and development organization. Chronic wounds affect 5.7 million patients and cost \$20 billion annually. Severe burns sustained on the battlefield result in four percent of all combat related injuries; 44 percent of all burn disability is due to contractures and range of motion loss. The SWRI program will develop improved therapeutic interventions that combine laser and drug therapies – with the objective of accelerating and improving the scar healing process. Therapies will be tested clinically at outpatient clinics in Akron and Youngstown, and Austen BioInnovation Institute (in consortium with Akron Children's Hospital).

CureSearch – Pediatric Cancer Research and Clinical Trials: \$3 million

CureSearch funds and supports the research of the Children's Oncology Group, the world's largest cooperative pediatric cancer research organization. This project will support and expand upon existing Department of Defense translational research; specifically, genome-wide screening for therapeutic targets in high-risk childhood cancer. This involves identifying, delineating, and validating molecular targets into new approaches to therapy targeting new agents against highly resistant, poor prognosis diseases. Funding will benefit Akron Children's Hospital and five other children's hospitals in Ohio.

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